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## REMARKS/ARGUMENTS

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 USC § 102 (b) or obvious under the provisions of 35 USC § 103 (a). Thus, the Applicants believe that all of these claims are now in allowable form.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, the Examiner should telephone Ms. Janet M. Skafar, Esq. at message telephone number (408) 463-5670 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Status of Claims

Claims 1-64 are pending in this application. Claims 57-64 are new.

The Rejection of Claims 1-2 and 16 Under 35 USC § 102 (b)

Claims 1-2 and 16 were rejected under 35 USC § 102 (b) as being anticipated by Harvey (Excel 2000 for Windows for Dummies, IDG Books Worldwide, Copyright 1999).

In response to the rejection, the Applicants have amended independent claim 1. Claim 1 recites: "executing one or more user-defined macros, comprising one or more instructions of a programming language, in the received web page to display the

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web-based spreadsheet, the web-based spreadsheet comprising cells, the one or more user-defined macros comprising a first user-defined macro that is expressly referenced in a first formula of a first cell." Because the rejection of claim 41 states that Harvey does not specifically teach about executing macros and claim 1 recites executing one or more user-defined macros, the Applicants submit that claim 1 is not anticipated by Harvey.

Since claim 1 includes the limitation of one or more user-defined macros, claim 1 will be discussed with respect to the rejection of claim 41. The rejection of claim 41 states that Harvey does not specifically teach about executing macros. The rejection of claim 41 then asserts that Shadoff (Lewis Shadoff, JavaScript-based Web spreadsheet, Copyright 1997) performs basic functions such as those taught by Harvey using JavaScript that acts as a macro language. The rejection of claim 41 further asserts that one of ordinary skill in the art at the time of invention would have been motivated to combine the teachings of Harvey and Shadoff providing the benefit of executing and displaying a web-based spreadsheet. The Applicants respectfully disagree and traverse the rejection.

Shadoff discloses the JavaScript to create a JavaScript Spreadsheet. However, Shadoff does not teach or suggest, explicitly or implicitly, expressly referencing a JavaScript function in a formula of one of the cells of the spreadsheet. Therefore, Shadoff does not teach or suggest, explicitly or implicitly, the limitation of "a first user-defined macro that is expressly referenced in a first formula of a first cell."

The JavaScript of Shadoff is part of the built-in functionality of the spreadsheet. In contrast, in the claimed invention, the user-defined macro allows a designer to extend the built-in capabilities of the application, that is, the spreadsheet, by writing his or her own JavaScript code. (See Applicants' Specification page 54, line 15 et seq.). Shadoff provides no teaching, expressly or impliedly, of extending the built-in functions of the spreadsheet through a user-defined macro. Therefore, Shadoff does not

teach or suggest, explicitly or implicitly, the limitation of "a first user-defined macro that is expressly referenced in a first formula of a first cell."

Moreover, in Applicants' specification, a macro editor is provided in the spreadsheet to allow users to create user-defined macros (See Applicants' Specification Fig. 14B). In contrast, the spreadsheet of Shadoff provides no mechanism to allow users to create user-defined macros, further demonstrating that the functions of Shadoff are built-in functions, rather than user-defined macros.

For the foregoing reasons, the Applicants submit that Harvey and Shadoff do not teach or suggest, alone or in combination, explicitly or implicity, all the limitations of claim 1. Therefore the present invention is not shown, disclosed or suggested, explicitly or even implicitly, alone or in combination, by Harvey and Shadoff.

In addition, Applicants have amended claim 1 to expand the scope of the certain limitations as follows. Claim 1 recites "executing information in the received web page to allow information to be entered into a second cell of the web-based spreadsheet," rather than "executing information in the received web page to allow a user to enter information into the cells of the web-based spreadsheet." This amendment expands the scope of this limitation from information entered by a user to include information entered by other than a user, for example, resulting from a built-in function and/or a user-defined macro. Claim 1 has also been amended to recite "executing information in the received web page to update a third cell dependent on the second cell," rather than "executing information in the received web page to update cells dependent of the cells changed by the user." This amendment expands the scope of the limitation from information changed by a user to include information changed by other than a user.

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Independent claim 1, as it currently stands, contains suitable limitations
directed at the distinguishing aspects of the present invention. The claim, with these
limitations shown in a bolded typeface, recites as follows:

"A method of displaying a web-based spreadsheet, comprising:
sending a request to a server to retrieve the web-based
spreadsheet;
receiving at least part of a web page in response to the
request;
**executing one or more user-defined macros, comprising
one or more instructions of a programming language, in the
received web page to display the web-based spreadsheet, the
web-based spreadsheet comprising cells, the one or more user-
defined macros comprising a first user-defined macro that is
expressly referenced in a first formula of a first cell;**
executing information in the received web page to allow
information to be entered into a second cell of the web-based
spreadsheet; and
executing information in the received web page to update a
third cell dependent on the second cell." [emphasis added]

As such, the Applicants submit that independent claim 1 is not obvious
over the teachings in Harvey and Shadoff. Hence independent claim 1 is patentable.
Claims 2-16 depend, either directly or indirectly from claim 1 and are patentable for the
same reasons as claim 1.

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### The Rejection of Claim 4 Under 35 USC § 103 (a)

Claim 4 depends from claim 1 and has additional distinguishing
limitations. Claim 4 was rejected under 35 USC § 103(a) as being unpatentable over
Harvey in view of Garman (U.S. Patent No. 5,926,822). The rejection asserts that in
regard to dependent claim 4, Harvey fails to teach that at least one cell or macro of the
web-based spreadsheet contains live data this is updated periodically as the spreadsheet is
being displayed. The rejection then asserts that the Garman patent teaches that in a
spreadsheet environment, it is now common to import and user real-time data items from
external real time data sources. The rejection further asserts that in particular, means are
commonly provided to import "real time data items" ("RTDIs") into individual
spreadsheet cells, such RTDIs frequently being numeric data generated by an external
physical process. In general, such RTDIs appear within spreadsheets as simple numerical
values that change from time to time. These data items are "real-time," in the sense that
they reflect the almost-current state of the process that they attempt to describe. The
rejection then contends that it would have been obvious to one or ordinary skill in the art
at the time of invention to have combined the teaching of Harvey and Garman providing
the benefit of live and current financial data. Applicants respectfully disagree. Neither
Harvey nor Garman, alone or in combination, explicitly or implicitly, teach or suggest all
the limitations of claim 4.

Claim 4 recites: "wherein at least one second cell of the web-based
spreadsheet comprises a second formula expressly referencing a second user-defined
macro of the one or more user-defined macros, to retrieve live data that is updated
periodically as the spreadsheet is being displayed, the second user-defined macro
comprising one or more instructions of the programming language, and wherein said
executing information in the received web page to allow information to be entered into at
least one second cell comprises invoking the second user-defined macro."

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The Garman patent is directed to a spreadsheet application that includes a tape function operating in conjunction with a plurality of tape data structures, to store real time data items received over individually over time from a real time data source into one of the tape structures, thereby persistently storing a set of previously received real time data items in a manner that is accessible to other functions of the spreadsheet. (See Garman patent, Abstract). The technique of claim 4 is different from the technique of the Garman patent. The Garman patent builds the tape function into the spreadsheet. In contrast, in claim 4, a cell comprises a formula expressly referencing a user-defined macro, comprising one or more instructions of the programming language, to retrieve the live data that is updated periodically. Therefore, Applicants submit that claim 4 is patentable.

## The Rejection of Claim 17 Under 35 USC § 103 (a)

Independent Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Harvey in view of the Cho et al. patent (U.S. Patent No. 6,341,292). In response, claim 17 has been amended to recite the following limitations: "executing information in the received web page to allow the user to create a user-defined macro comprising Javascript instructions, the user-defined macro having a macro name" and "executing information in a received web page to allow the user to enter information into the cells of the web-based spreadsheet, the user entering a formula expressly referencing the macro name in at least one cell." Neither Harvey nor the Cho et al. patent teach or suggest, alone or in combination, explicitly or implicitly, executing information in the received web page to allow the user to create a user-defined macro comprising Javascript instructions, the user-defined macro having a macro name, and the user entering a formula referencing the macro name in at least one cell.

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     The rejection stated with respect to claim 41 that Harvey does not specifically teach about executing macros. That rejection then asserted that Shadoff performs basic functions such as those taught by Harvey using Javascript that acts as a macro language. Applicants respectfully disagree. Shadoff has been discussed above with respect to claim 1, and those arguments also apply to claim 17. Furthermore, Shadoff does not teach or suggest, explicitly or implicitly, executing information in the web page, such as a macro editor (See Applicants' Specification Fig. 14B), to allow the user to create a user-defined macro comprising Javascript instructions, that the user-defined macro has a macro name, and that the user enters a formula referencing the macro name in at least one cell.

     Independent claim 17, as it currently stands, contains suitable limitations directed at the distinguishing aspects of the present invention. The claim, with these limitations shown in a bolded typeface, recites as follows:

     "A method of allowing a user to design a web-based spreadsheet, comprising:

     executing information in a received web page to display an initial web-based spreadsheet;

     **executing information in the received web page to allow the user to create a user-defined macro comprising Javascript instructions, the user-defined macro having a macro name;**

     executing information in the received web page to allow the user to enter information into the cells of the web-based spreadsheet, **the user entering a formula expressly referencing the macro name in at least one cell;**

     sending a number of rows and columns of the web based spreadsheet, **the user-defined macro,** and the information entered by the user to a server for storage on the server; and

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sending a request to the server to retrieve the web-based

spreadsheet." [emphasis added]

For the foregoing reasons, the Applicants submit that independent claim 17 is not obvious over the teachings in Harvey and Cho. In addition, the Applicants submit that independent claim 17 is not obvious over the teachings in Harvey, Cho and Shadoff. Hence independent claim 17 is patentable. Claims 18-36 depend, either directly or indirectly from claim 17 and are patentable for the same reasons as claim 17.

### The Rejection of Claim 37 Under 35 USC § 103 (a)

Independent claim 37 was rejected under 35 USC § 103(a) as being unpatentable over Harvey in view of Flanagan (JavaScript, The Definitive Guide, 3rd Edition, Copyright 06/1998, pp. 244-246). In response to the rejection, claim 37 has been amended to include the following limitations: "sending the requested spreadsheet web page to the client system, based on the parameters received, wherein said spreadsheet web page contains embedded data specific to the requested spreadsheet web page and capable of causing display of a spreadsheet, said spreadsheet web page comprising one or more user-defined macros comprising Javascript, the spreadsheet web page comprising cells, at least one cell of said cells comprising a formula expressly referencing at least one user-defined macro." Neither Harvey nor Flanagan, alone or in combination, explicitly or implicitly, teach or suggest a spreadsheet web page comprising one or more user-defined macros comprising Javascript. Furthermore, neither Harvey nor Flanagan, alone or in combination, explicitly or implicitly, teach or suggest a spreadsheet web page comprising cells, at least one cell of said cells having a formula expressly referencing at least one user-defined macro.

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    The rejection of claim 41 used the Shadoff reference for the teaching of a macro. As discussed above with respect to claim 1, Shadoff does not teach or suggest a spreadsheet web page comprising a user-defined macro, and at least one cell comprising a formula referencing the user-defined macro.

    Independent claim 37, as it currently stands, contains suitable limitations directed at the distinguishing aspects of the present invention. The claim, with these limitations shown in a bolded typeface, recites as follows:

> "A computer-implemented method performed by a server data processing system, comprising:
>
>     receiving a request, from a client system, for a spreadsheet web page;
>
>     reviewing parameters received with the request for the spreadsheet web page, said parameters include a spreadsheet mode and a data ID; and
>
>     sending the requested spreadsheet web page to the client system, based on the parameters received, wherein said spreadsheet web page contains embedded data specific to the requested spreadsheet web page and capable of causing display of a spreadsheet, **said spreadsheet web page comprising one or more user-defined macros comprising Javascript, the spreadsheet web page comprising cells, at least one cell of said cells comprising a formula expressly referencing at least one user-defined macro.**" [emphasis added]

    For the foregoing reasons, the Applicants submit that independent claim 37 is not obvious over the teachings in Harvey and Flanagan. In addition, the Applicants submit that independent claim 37 is not obvious over the teachings in Harvey, Flanagan

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and Shadoff. Hence independent claim 37 is patentable. Claims 38-40 depend, either directly or indirectly from claim 37 and are patentable for the same reasons as claim 37.

### The Rejection of Claim 41 Under 35 USC § 103 (a)

Independent claim 41 was rejected under 35 USC § 103(a) as being unpatentable over Harvey in view of Shadoff. The rejection of claim 41 states that Harvey does not specifically teach about executing macros. The rejection then asserts that Shadoff (Lewis Shadoff, JavaScript-based Web spreadsheet, Copyright 1997) performs basic functions such as those taught by Harvey using JavaScript that acts as a macro language. The rejection further asserts that one of ordinary skill in the art at the time of invention would have been motivated to combine the teachings of Harvey and Shadoff providing the benefit of executing and displaying a web-based spreadsheet. The Applicants respectfully disagree and traverse the rejection.

In response, claim 41 was amended to recite "one or more user-defined macros comprising at least one of an initialization macro which is invoked when the spreadsheet web page is loaded and a first macro which is expressly referenced in a formula of at least one cell of the web-based spreadsheet." Because the limitations of one or more user-defined macros and executing a macro of claim 41 were included in claim 1 which was discussed above, claim 41 is non-obvious for the same reasons as claim 1.

Claim 41 has additional limitations not recited in claim 1. Claim 41 recites "said one or more user-defined macros comprising at least one of an initialization macro which is invoked when the spreadsheet web page is loaded and a first macro which is expressly referenced in a formula of at least one cell of the web-based spreadsheet." Neither Harvey nor Shadoff, alone or in combination, explicitly or implicitly, teach or suggest the limitations of "said one or more user-defined macros comprising at least one

of an initialization macro which is invoked when the spreadsheet web page is loaded and a first macro which is expressly referenced in a formula of at least one cell of the web-based spreadsheet." Shadoff does not teach a user-defined initialization macro which is invoked when the spreadsheet web page is loaded.

Claim 41 also recites "executing a second macro of said one or more user-defined macros in the received web page to allow information to be entered into a second cell of the web-based spreadsheet." Shadoff does not teach a user-defined macro in the received web page to allow information to be entered into a second cell of the web-based spreadsheet.

Moreoever, claim also recites "executing a third macro of said one or more user defined macros in the received web page to a third cell dependent on the second cell. Shadoff does not teach a user-defined macro in the received web page to update a cell dependent on another cell.

In addition, Applicants have amended claim 41 to expand the scope of certain limitations as follows. Claim 41 recites "executing a second macro of said one or more user-defined macros in the received web page to allow information to be entered into a second cell of the web-based spreadsheet," rather than "executing macros in the received web page to allow a user to enter information into the cells of the web-based spreadsheet." This amendment expands the scope of this limitation from information entered by a user to include information entered by other than a user, for example, resulting from a built-in function and/or a user-defined macro. Claim 41 has also been amended to recite "executing a third macro of said one or more user-defined macros in the received web page to update a third cell dependent on the second cell," rather than "executing macros in the received web page to update cells dependent of the cells changed by the user." This amendment expands the scope of the limitation from information changed by a user to include information changed by other than a user.

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Independent claim 41, as it currently stands, contains suitable limitations directed at the distinguishing aspects of the present invention. The claim, with these limitations shown in a bolded typeface, recites as follows:

"A method of displaying a web-based spreadsheet, comprising:

sending a request to a server to retrieve the web-based spreadsheet;

receiving at least part of a web page in response to the request;

**executing one or more user-defined macros in the received web page to display the web-based spreadsheet, said one or more user-defined macros comprising at least one of an initialization macro which is invoked when the spreadsheet web page is loaded and a first macro which is expressly referenced in a formula of at least one cell of the web-based spreadsheet;**

**executing a second macro of said one or more user-defined macros in the received web page to allow information to be entered into a second cell of the web-based spreadsheet;** and

**executing a third macro of said one or more user-defined macros in the received web page to update a third cell dependent on the second cell.**" [emphasis added]

For the foregoing reasons, the Applicants submit that independent claim 41 is not obvious over the teachings in Harvey and Shadoff. Hence independent claim 41

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is patentable. Claims 42-56 depend, either directly or indirectly from claim 41 and are patentable for the same reasons as claim 41.
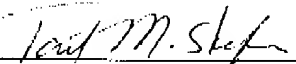
The Hallberg publication (Hallberg, "Using Microsoft Excel 97, Copyright 1997, pp. 596-601) was cited in the rejection of claims 12-15, 32-35 and 52-56. The Garrett patent (U.S. Patent No. 6,473,738 B1) was cited in the rejection of dependent claims 20 and 21. Applicants submit that neither the Hallberg publication nor the Garrett patent teach or suggest user-defined macros.

Conclusion

Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

Respectfully submitted,

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